



SMART RANGE

GENSET 11 kVA GRUPEL / GRUPEL

1. MAIN FEATURES

T	Three-phase		Diesel	SOUNDPROOF	
	Grupel / 3GA14D50		Grupel / 164GB14	Length (L)	1620 mm
	Grupel / G545	Hz	50 Hz	Height (H)	1120 mm
	1500 r.p.m.	V	400 V	Width (W)	725 mm
cos φ	0.8		16 A	Weight	615 kg
Standby Power(ESP)		11 kVA		Fuel tank daily capacity	45 L
Prime Power (PRP)		10 kVA		Acoustic pressure level @ 1m	79 ± 2 dB(A)
Continuous Power(COP)		-		Acoustic pressure level @ 7m	71 ± 2 dB(A)

2. ROOM INSTALLATION

EXHAUST SYSTEM		50 Hz		VENTILATION SYSTEMS		50 Hz	
	COP	PRP	ESP		COP	PRP	ESP
Exhaust gas temperature (°C)	-	550	550	Combustion air flow (m³/min)	-	1	1.1
Exhaust gas flow (m³/min)	-	2.0 6	2.2 5	Cooling airflow (m³/min)	42.5		
Evacuated heat (kW)	-	-	-	Maximum load losses (Pa)	-		
Maximum back pressure (kPa)	5			Alternator cooling air flow (m³/min)	4.32		
Exhaust silencer attenuation (dB)	18-25			RADIATION			
Output diameter (mm)	65				COP	PRP	ESP
				Engine (kW)	-	-	-
				Alternator (kW)	2.1	2.1	2.3



3. ENGINE SPECIFICATIONS

GENERAL SPECIFICATIONS		50Hz
Model	3GA14D50	
Emissions (UE/USEPA)	Not applicable / Not applicable	
Performance grade	G3*, ISO 8528:5 2018	
Operating method	4 stroke	
Fuel type	Diesel	
Refrigeration system	Closed water circuit / antifreeze	
Aspiration system	Natural	
Injection system	Direct	
No. and Cylinder arrangement	3 In-line	
Displacement (L)	1.357	
Cylinder bore (mm)	80	
Cylinder stroke (mm)	90	
Compression ratio	18,1:1	
Regulation	Electronic	
Rotation speed (r.p.m.)	1500	
Piston speed (m/s)	4.5	
Gross power COP (kWm)	-	
Gross power PRP (kWm)	10.5	
Gross power ESP (kWm)	11.5	
Fan Power (kWm)	- / 1 / 1	
Net Power COP (kWm)	-	
Net Power PRP (kWm)	9.5	
Net Power ESP (kWm)	10.5	
BMEP COP (kPa)	-	
BMEP PRP (kPa)	619	
BMEP ESP (kPa)	678	



CONSUMPTION		50 Hz
Fuel consumption	l/h	g/kWh
ESP	3.5	255
PRP	3.2	255
COP	-	-
75%	2.4	255
50%	1.6	255
Oil consumption	< 0.1% of fuel consumption	

REFERENCE CONDITIONS	
Temperature (°C)	25
Atmospheric pressure (kPa)	100

CAPACITY (°C)	
Coolant (L)	9.5
Oil (L)	4

STARTING SYSTEM	
Voltage (V)	12
Power (kW)	2
Battery (Ah)	62

4. ALTERNATOR SPECIFICATIONS

GENERAL SPECIFICATIONS	
Model	164GB14
Phases No.	Three-phase
Protection	IP23
Insulation	H
Temperature rise	H
R.F.I. telephone interference	THF < 2%
R.F.I. Suppression	BS EN 61000-6-2 /6-4,VDE 0875G, VDE 0875N
Coupling	Flexible disks
Support	Single bearing



Wave form distortion with no load	< 1,5%
Wave form distortion with balanced linear load	< 5%
Winding Leads	12
Excitation (standard/optional)	Autoexcitado / -
AVR Model (standard/optional)	SX460 / -
Voltage Regulation (standard/optional)	± 1 % / -
Icc (standard/optional)	- / -

PF (cos Ø)	Phase	Voltage (V)	Power PRP/ESP (kVA)	Efficiency PRP/ESP (%)	Xd	X'd	X''d
0.8	Three-phase	400	13.5 / 14.8	80.6 / 80.6	1.754	0.179	0.112



5. CONTROL PANEL



GENSET	Grupel G545
Voltage (F-F / F-N)	● / ●
Current intensity	●
Frequency	●
RMS Values	●
Generator phase sequence	●
Generator earth current [a]	○
No. of registered events	400
Real time clock	●
PIN Protection	●
kWh, kVAr, kVAh, kVArh, cos Ø	●
Synchroscope [i]	○
No. of available outputs [b]	4
Indication of alarms on LCD	●
Hours of engine operation	●
Total no. of LED indicators	15
No. of LED alarms	4
Sound signalling alarms	-
Schedule	●
Fuel level	●

ELECTRICAL GRID	Grupel G545
Voltage (F-F / F-N)	● / ●
Current [a]	○
Frequency	●
kVA,kW, cos Ø [a]	○
Inversion control between main-group	●

PROTECTIONS AND ALARMS	Grupel G545
High / low battery voltage	A
Failure in battery charge alternator	A
Failure to stop	A/S
Failure to start	A/S
Low fuel level	A/S
Overload	A/S
Earth leakage	A/S
Asymmetry between phases	A/S
Maintenance	A/S
High / Low generator frequency	A/S
Engine overspeed	A/S
Engine underspeed	A/S
Generator overvoltage	A/S
Generator undervoltage	A/S
ECU Alert (if applicable)	A/S
Low oil pressure	A/S
Low level of radiator water [f]	A/S
Engine high temperature	A/S
Fuel leakage/ theft	A



6. CONTROL PANEL

ENGINE	Grupel G545	APPLICATIONS	Grupel G545
Engine speed	●	Automatic or manual start-up	●
Low oil pressure protection	●	Remote start by dry contact	●
Oil pressure reading [c]	○	Automatic by mains failure	●
High temperature engine protection	●	Alternating with timesharing	●
Engine temperature reading [c]	○	Multi-generators synchronization and load sharing (max. 48 generators) [i]	○
Engine battery voltage	●	Generator-Mains in synchronism and load sharing (1 generator and 1 mains) [i]	○
Intensity of the engine battery [d]	○		
Fuel Consumption [e]	●		
Low level of radiator water [f]	○		
Scheduled engine maintenance	●		
COMMUNICATION	Grupel G545	OPTIONAL EXPANSIONS	Grupel G545
USB female type B (max. 6m)	●	G-08 (8 dig. inputs)	○
USB female type A [g]	○	G-06 (8 relay outputs)	○
RS232 port (max. 15m)	-	G-GSM (GSM and/or GPS by MLAT)	○
RS485 port (max. 1,2Km)	●	G-ETH (ethernet module)	○
Ethernet port RJ45 [g]	○	G-ETH (ethernet module according to SNMP protocol)	○
GSM + location via MLAT [h]	○	G545 (mirror controller, maximum distance 1km)	○
ModBus RTU protocol	●	G175 (convert QTC into QTA)	○
ModBus TCP protocol [g]	○	G545 (convert QTC into QTA)	○
SNMP protocol [g]	○		
CAN port (max. 40m)	●		
MSC port (max. 240m) [i]	○		
PLC functionality	●		
STANDARDS			
Working temperature		-30 ≤ °C ≤ 70	
Protection degree (front panel)		IP65	
Degree of humidity (during 48hr)		93%, 40°C	

Legenda

- Available
- Optional
- Not available
- A Warning Alarm
- S Stop alarm
- [a] Need additional CT
- [b] No. of outputs available for standard configuration. The outputs do not include relays and additional terminal connections.
- [c] If the information is not provided by the engine-ECU, you need an additional sensor
- [d] Needs additional ammeter
- [e] If information provided by the engine ECU
- [f] Required additional sensor
- [g] Requires G-ETH
- [h] Requires G-GSM
- [i] Requires G-Sync

Dimensions and weights guidelines. Environmental reference conditions: 100kPa, 25 °C, 30% relative humidity and fuel temperature below 40 °C. Power ratings according to ISO 8528-1:2018.

Emergency power (ESP): Maximum power available to supply variable loads for a maximum period of 200h/year. The average load factor in 24h of operation must not exceed 70% of the ESP regime. It does not allow overload.

Prime power (PRP): Maximum power available to supply variable loads for an unlimited number of hours. The average load factor in 24 hours of operation must not exceed 70% of the PRP rating. Allows an overload of 10% for a maximum period of 1 hour every 12 hours of operation. Overloading may not exceed 25 hours/year.

Continuous power (COP): Maximum power available to supply constant loads for an unlimited number of hours per year, between the maintenance intervals and environmental conditions advertised by the manufacturer.

These specifications are subject to change without notice.

DISTRIBUTOR



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